

DRAFT

# Arkansas Payment Improvement Initiative

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Discussion document  
Hip and Knee Episode

April 16, 2012

*PRELIMINARY WORKING DRAFT, SUBJECT TO CHANGE*



# Objectives for today and what's coming up

## Objectives for today

- Review and get your feedback on version 1.0 design elements specific to Hip and Knee replacements
- Review historical data for Hip and Knee replacement episodes based on version 1.0 design
- Briefly review episode design elements common across episodes

## What's coming up

- May/June: release and review of version 1.0 episode design refined based upon stakeholder input
- May/June: provider education efforts (town halls/ educational workgroups)
- July 1: Program launch (reporting period first) for hip and knee episode – details on next page

# July 1<sup>st</sup> launch: current thinking on what to expect

Key milestones	Description	Timing
▪ <b>Description of design elements across episodes</b>	▪ In-depth discussion of design elements common across clinical areas. <i>See discussion documents posted on-line.</i>	Mid-March
▪ <b>Program announcement and education</b>	<ul style="list-style-type: none"> <li>▪ Payment design and documentation published</li> <li>▪ Educational workgroups and town halls to answer questions</li> </ul>	May/ June
▪ <b>Program launch</b>	▪ All analytic/ reporting engines up and running	July 1 <sup>st</sup>
▪ <b>Reporting period (3-6 months)</b>	<ul style="list-style-type: none"> <li>▪ Principal Accountable Providers (PAP) begin data exchange and later receive baseline historical performance reports</li> <li>▪ Analytic/ reporting engines track “virtual” performance for each PAP</li> <li>▪ Performance does not yet impact payment</li> </ul>	July 1 <sup>st</sup>
▪ <b>Feedback period</b>	<ul style="list-style-type: none"> <li>▪ Workgroups provide feedback on version 1.0</li> <li>▪ Payors may refine version 1.0 design</li> </ul>	July 1 <sup>st</sup> – Sep 1 <sup>st</sup>
▪ <b>Performance period begins</b>	▪ New episodes begin to count towards a PAP’s share of risk or gain sharing	Q4 2012 or Q1 2013

## Recap: goals of Payment Initiative compared with fee-for-service

- ✓ Reward high-quality care and outcomes
- ✓ Encourage clinical effectiveness
- ✓ Promote provider coordination to reduce complications and associated costs
- ✓ Encourage referral to higher-value downstream providers

# Recap: Episode-based care delivery will be paid for using an "episode performance payment" model<sup>1</sup>

## How episode performance payment will work:

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- A cost threshold is determined for an episode
- One or more providers is designated the Principal Accountable Provider (PAP)
- Providers initially paid separately for the care they deliver, filing claims as they do today
- At the end of the episode, average costs and quality for the entire episode are aggregated and compared with the pre-determined threshold
- Savings or excess costs are divided between the PAP(s) and the payor or plan sponsor<sup>2</sup>
- While only PAPs directly receive a share of gain or risk from the payor, these providers may in turn choose to share incentives or risk with one or more other participating providers, subject of course to any legal limitations
- While the episode model inherently incents high quality care, PAPs will not be eligible for gain sharing unless certain quality thresholds are met

<sup>1</sup> We have previously described this as a "retrospective reconciliation" method of episode-based payment

<sup>2</sup> Upside and downside risk or gain sharing will be made at period intervals (i.e., at the end of a performance period)

# Recap: Principal accountable providers – overview and criteria




*Two types of providers for an episode of care:*

- **Principal accountable provider (PAP):**
  - Provider with which payor directly shares upside/risk for cost relative to benchmark
  - Receives performance reports, organizes team to drive performance improvement
  - May be physician practice, hospital, or other provider
- **Other participating provider(s):**
  - Any provider that delivers services during an episode that is not a PAP
  - Do not directly share in upside/risk for cost relative to benchmark

*Payors will identify one (or two if necessary) principal accountable provider(s) for each episode of care*

- *Focuses accountability*
- *Ensures sufficient upside/downside to motivate behavior change*
- *Simplifies administration*

*Qualifications for a Principal Accountable Provider*

-  **Decision-making responsibility:** provider is principal (not exclusive) decision maker for most care during episode
  - Selects tests/ screenings
  - Determines treatment approach
  - Carries out procedures
-  **Influence over other providers:** provider is in best position to coordinate with, direct, or incent participating providers to improve performance
  - Makes referral decisions
  - Provides infrastructure
  - Organizes quality improvement efforts
-  **Economic relevance:** provider bears a material portion of the episode cost or a significant case volume

# Contents

## **Review version 1.0 episode design elements specific to Hip and Knee**

- Review historical data for the Hip and Knee episode based on version 1.0 design
- Briefly review episode design elements common across episodes

# Preliminary proposal: Version 1.0 episode design elements for Hip/Knee

## 1 Episode definition/ scope of services

- Hip and Knee Replacement episode is **triggered** by a surgical procedure (CPT 27130 and 27132/THR and CPT 27447/TKR) on the patient for total hip and knee replacement for Joint Degeneration or Osteoarthritis. Partial hip and knee replacement and revisions are not included.
- Episode starts 30 days before admission for surgery and continues for 90 days after hospitalization discharge.
- Episode includes all costs associated with pre-operative evaluations, diagnostic assessments, imaging, inpatient surgery and post-op stays, implants, rehabilitation, physical therapy, drugs, treatment for readmission and other complications associated or resulting from the procedure

## 2 Principal account- able provider(s)

- The Orthopedic Surgeon conducting the procedure is the PAP; the hospital may also be considered a co-PAP

## 3 Patient exclusions on a clinical basis

- Certain patients excluded from the v1.0 episode model
  - Eligibility exclusions (e.g., not continuously enrolled)
  - Some co-morbid factors related to ESRD, Organ Transplants, Pregnancy, Autoimmune diseases
  - Limited to patients with hospital claims coded as DRG 470 (Major Joint Replacement or Reattachment of Lower Extremity w/o MCC)

## 4 Quality

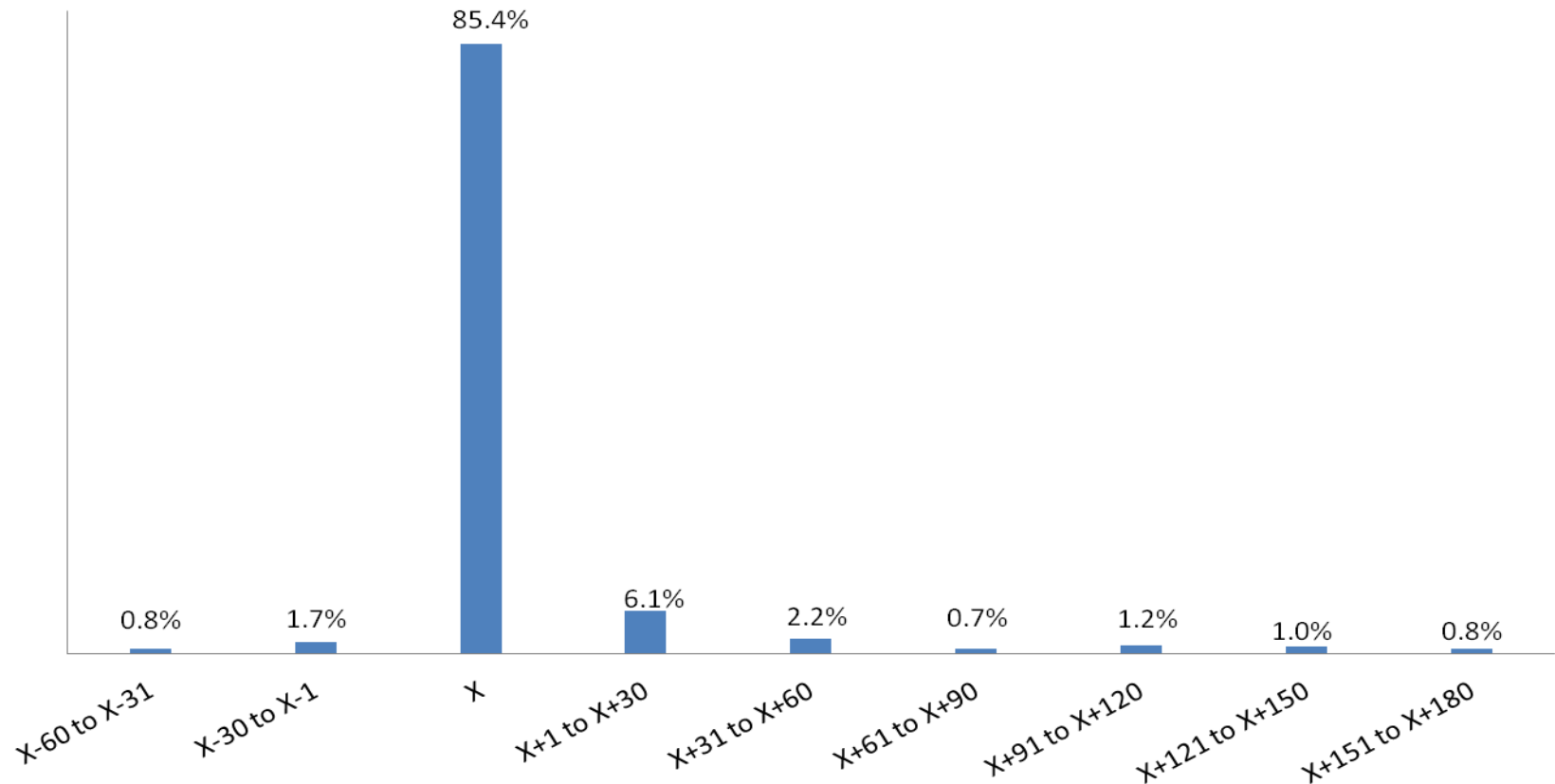
- *Quality metrics “to pass” (i.e., eligibility for receiving upside sharing)*
  - 30 day all cause readmission rate
- *Quality and utilization metrics for tracking purposes only*
  - Post-Op Deep Venous Thrombosis/Pulmonary Embolism
  - 30 day wound infection rate
  - Percent of patients transferred to SNF/Rehab facility
  - Average length of stay at SNF/Rehab facility
- *Longer-term/ version 2.0:* consider including patient satisfaction + range of motion evaluations

PRELIMINARY  
AND FOR  
DISCUSSION



# 1 Distribution of THR Episode Costs Over the Length of the Episode for the period of 2008 through 2010

**Breakdown of Total THR Episode Spending Over Time<sup>1</sup>**  
Percentage of Allowed Dollars



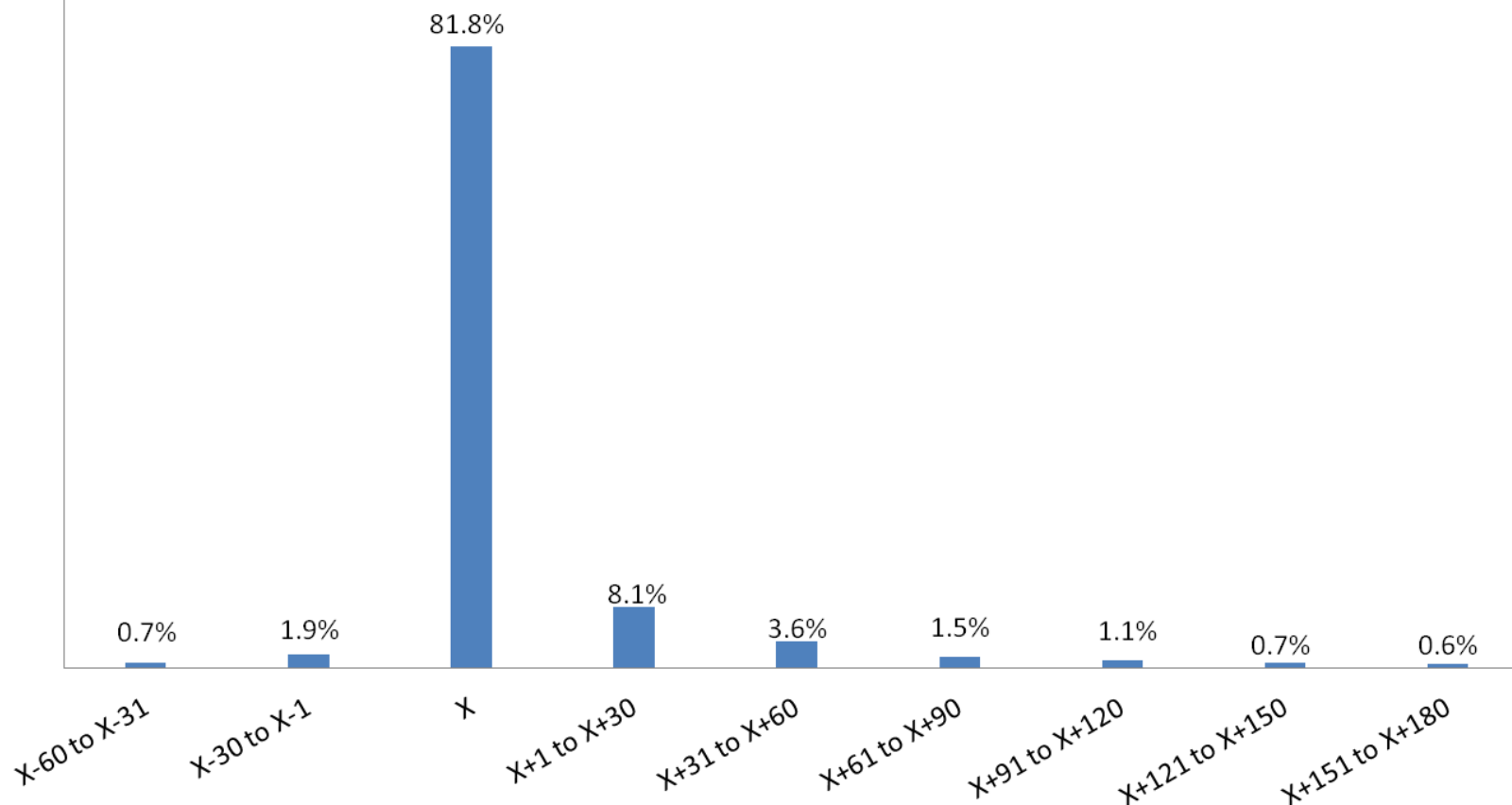
**1 X is the time frame of the start of the trigger event and the end of the index hospitalization; this analysis includes spend 60 days before through 180 days after the inpatient stay for the procedure**

Source: Arkansas BCBS Claims Data utilizing Ingenix ETG grouper

# 1 Distribution of TKR Episode Costs Over the Length of the Episode for the period of 2008 through 2010

## Breakdown of Total TKR Episode Spending Over Time<sup>1</sup>

Percentage of Allowed Dollars



<sup>1</sup> X is the time frame of the start of the trigger event and the end of the index hospitalization; this analysis includes spend 60 days before through 180 days after the inpatient stay for the procedure

Source: Arkansas BCBS Claims Data utilizing Ingenix ETG grouper

## 2 Criteria for determining eligible principal accountable providers

Criteria for PAP selection				<div> <div></div> High         </div> <div> <div></div> Low         </div>	FOR DISCUSSION
Decision-making	Influencing other providers	Economic relevance	Rationale		
Ortho. Surg.	<div></div>	<div></div>	<div></div>	<ul style="list-style-type: none"> <li>Surgeon is responsible for key decisions related to cost and quality (e.g., readmissions, some potentially avoidable complications, implant choice)</li> </ul>	
Hospital	<div></div>	<div></div>	<div></div>	<ul style="list-style-type: none"> <li>Hospital bears 70-80% of episode costs and is well-positioned to achieve coordination across care team</li> <li>Hospital also responsible for key decisions related to cost and quality (readmissions, LOS, implant procurement, HAC)</li> </ul>	
Radiologist	<div></div>	<div></div>	<div></div>	<ul style="list-style-type: none"> <li>Bears small amount of costs and has limited influence on other providers</li> </ul>	
SNF/Rehab	<div></div>	<div></div>	<div></div>	<ul style="list-style-type: none"> <li>Bears small amount of costs and has limited influence on other providers</li> </ul>	
Physical therapist	<div></div>	<div></div>	<div></div>	<ul style="list-style-type: none"> <li>Bears small amount of costs and has limited influence on other providers</li> </ul>	

### 3 Summary of Total Hip Replacement Episode Exclusions

Exclusion Criteria	Number of Episodes Excluded Using Criteria	Percent of Excluded Episodes (n= 159)	Percent of All Episodes (n=731)
Less than 18 years of age at start of episode	0	0.0%	0.0%
Hip claim other than Joint Degeneration or Osteoarthritis	4	2.5%	0.5%
Does not have a DRG 470 ("Major Joint Replacement or Reattachment of Lower Extremity without Major Complications or CoMorbidity") hospitalization	61	38.4%	8.3%
Participant not continuously enrolled	31	19.5%	4.2%
Multiple trigger claims over episode duration <sup>1</sup>	76	47.8%	10.4%
Episode was a Secondary/COB claim	8	5.0%	1.1%
Episode with discharge status of 'left against med advice' or 'in-hospital death'	1	0.6%	0.1%
Co-morbid claim within calendar year of episode <sup>2</sup>	4	2.5%	0.5%
Total Episodes Excluded	159	100.0%	21.8%

<sup>1</sup> For Version 2.0 need to consider methodology to include these claims with episode. Most related to bilateral procedures performed within the treatment "window".

<sup>2</sup> ICD-9 codes for the following: HIV (042), autoimmune diseases (279), ESRD (585.x; V45.1; V56.xx; V42.0), Organ Transplants (V42.y; 996.8x), Pregnancy (630-669.94; V22-24.99; V27-27.99)

### 3 Summary of Total Knee Replacement Episode Exclusions

Exclusion Criteria	Number of Episodes Excluded Using Criteria	Percent of Excluded Episodes (n= 485)	Percent of All Episodes (n=2,309)
Less than 18 years of age at start of episode	0	0.0%	0.0%
Knee claim other than Joint Degeneration or Osteoarthritis	1	0.2%	0.04%
Does not have a DRG 470 ("Major Joint Replacement or Reattachment of Lower Extremity without Major Complications or CoMorbidity") hospitalization	223	46.0%	9.7%
Participant not continuously enrolled	84	17.3%	3.6%
Multiple trigger claims over episode duration <sup>1</sup>	194	40.0%	8.4%
Episode was a Secondary/COB claim	14	2.9%	0.6%
Episode with discharge status of 'left against med advice' or 'in-hospital death'	2	0.4%	0.09%
Co-morbid claim within calendar year of episode <sup>2</sup>	18	3.7%	0.8%
Total Episodes Excluded	485	100.0%	21.0%

<sup>1</sup> For Version 2.0 need to consider methodology to include these claims with episode. Most related to bilateral procedures performed within the treatment "window".

<sup>2</sup> ICD-9 codes for the following: HIV (042), autoimmune diseases (279), ESRD (585.x; V45.1; V56.xx; V42.0), Organ Transplants (V42.y; 996.8x), Pregnancy (630-669.94; V22-24.99; V27-27.99)

## 4 Approach to quality metrics

- By design, episode model incents high-quality care
- In addition, we will incorporate two types of **quality metrics** into the episode model
- Some episodes will also have **additional design features** to promote quality

### Types of quality metrics

- **Quality metrics “to pass” (linked to payment)**  
(5 or fewer per episode)
  - **Quality metrics “to track”**  
(5 or fewer per episode)
- Initially, where possible, will be limited to claims-based metrics
  - If non-claims based, reported through a new, user-friendly, internet-based provider portal
  - Each metric linked to payment will have a quality threshold that providers must exceed

*Providers will regularly receive reports on their performance across both types of quality metrics*

### **Providers will be ineligible to receive upside gain-sharing if they don't:**

- Meet quality threshold on all performance metrics  
AND
- Fully report all required data for metrics that require reporting

## 4 Approach to quality: proposed metrics for Hip and Knee

### Hip and Knee quality metrics

#### Quality metrics linked to payment

- 30 day all cause readmission rate – claims based analysis

For input:

#### Reporting only quality metrics

- Post operative Deep Venous Thrombosis/Pulmonary Embolism – **via provider portal (only metric that requires reporting through the portal)**
- 30 day wound infection rate – claims based analysis
- Percent of patients transferred to SNF/Rehab facility – claims based analysis
- Average length of stay at SNF/Rehab facility – claims based analysis

- Feedback on these metrics?
- Additional metrics? E.g.,  
- 90 day readmission rate  
- Use of pharmacological or other prophylaxis for DVT/PEs?

*Longer-term/ version 2.0:* consider including patient satisfaction + range of motion evaluations

# Contents

- Review version 1.0 episode design elements specific to Hip and Knee

## **Review historical data for the Hip and Knee episode based on version 1.0 design**

- Briefly review episode design elements common across episodes



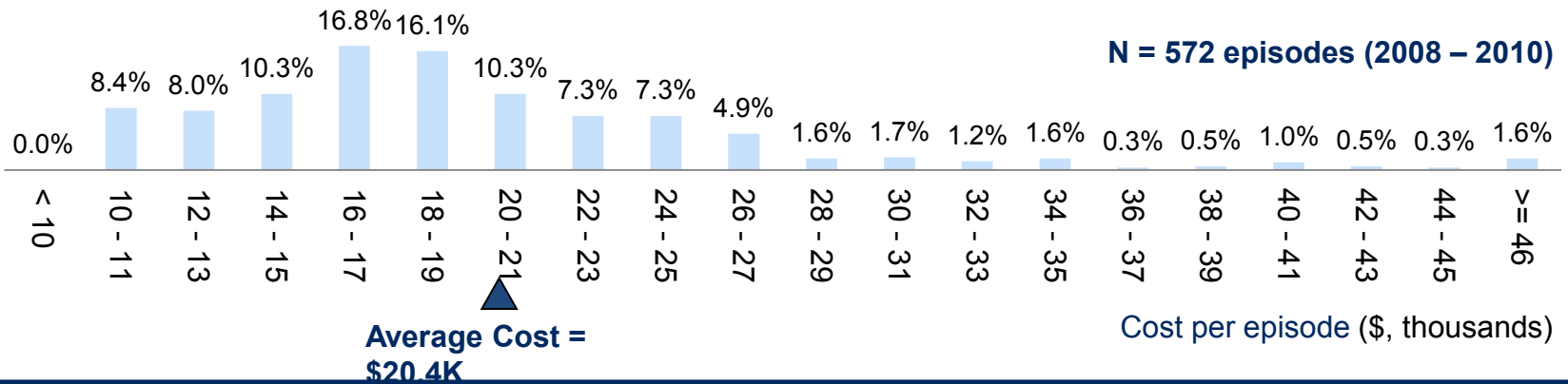
## Preliminary note about data presented in the following pages

- For simplicity, data presented in this document is based on Arkansas Blue Cross Blue Shield claims data from 2008-2010 (data for other participating payors to follow)
- Episodes are defined as described earlier in this document
- Data presented in this document include patient exclusions outlined earlier in the document; they do include any further provider exclusions or cost adjustments
- All data presented are preliminary and intended to facilitate today's discussion

# Distribution of Total THR and TKR Episode Costs

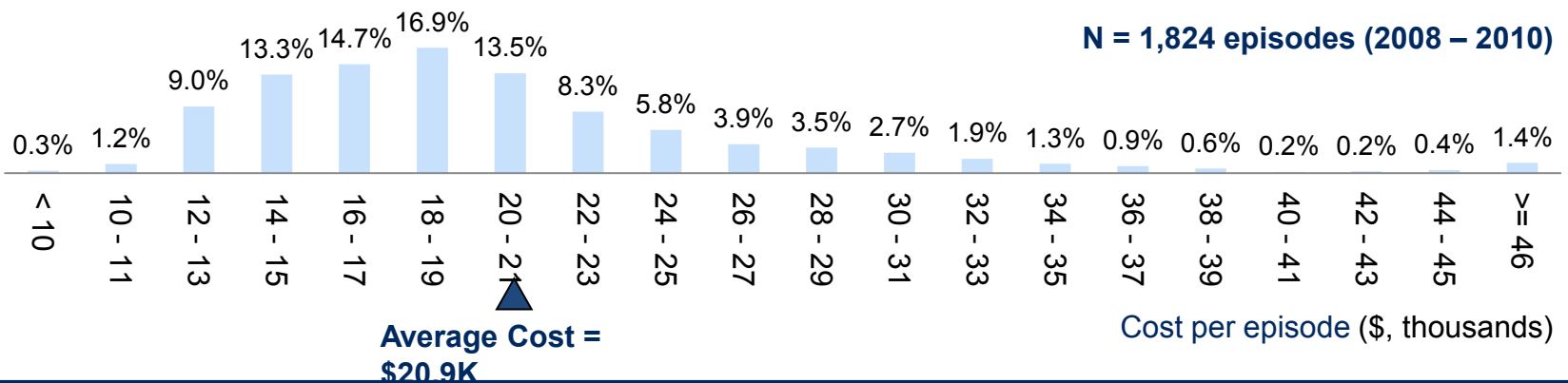
## Distribution of Total Hip Replacement (THR) episode costs in Arkansas

Percentage of total episodes



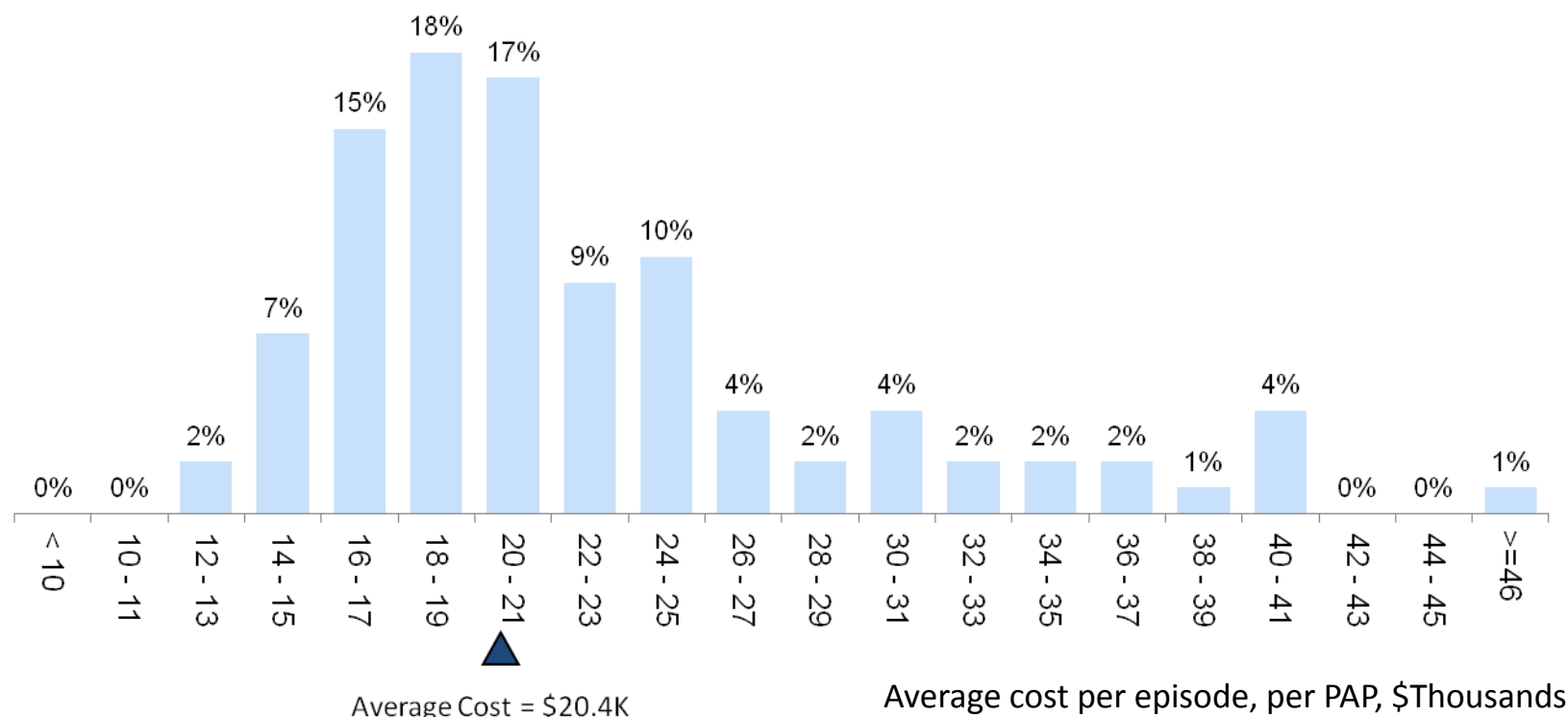
## Distribution of Total Knee Replacement (TKR) episode costs in Arkansas

Percentage of total episodes



# Average cost per Total Hip Replacement (THR) episode by treating Orthopedic Surgeon

Average episode cost<sup>1</sup> for total hip replacements in Arkansas attributed by orthopedic surgeon<sup>2</sup>  
% of orthopedic surgeon PAPs



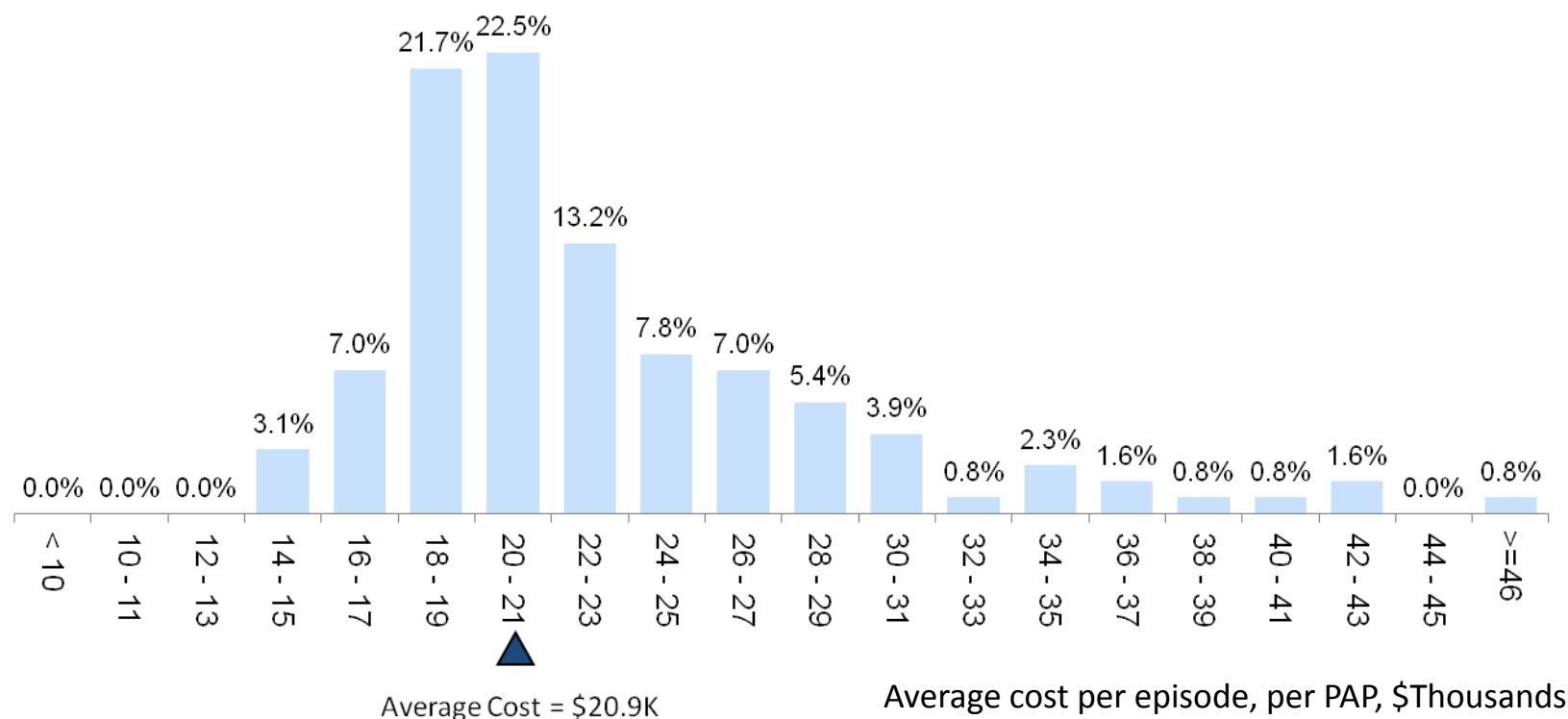
**1 Episode costs identified using Ingenix ETG grouper**

**2 Each bar represents case outcomes for individual orthopedic surgeon performing hip replacement procedure**

Source: Arkansas BCBS Claims Data from 2008 through 2010

# Average cost per Total Knee Replacement (TKR) episode by treating Orthopedic Surgeon

Average episode cost<sup>1</sup> for total knee replacements in Arkansas attributed by orthopedic surgeon<sup>2</sup>  
% of orthopedic surgeon PAPs

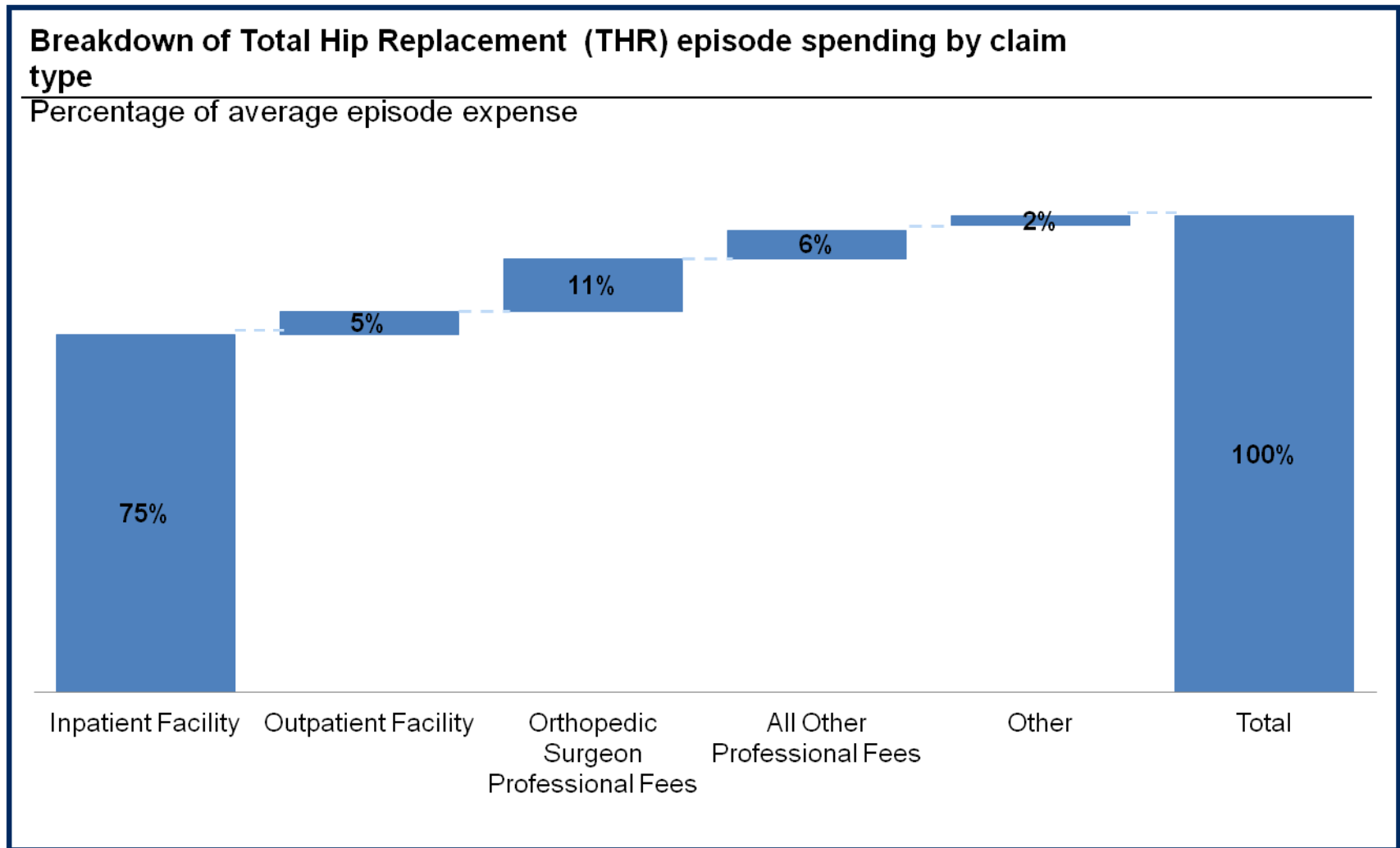


**1 Episode costs identified using Ingenix ETG grouper**

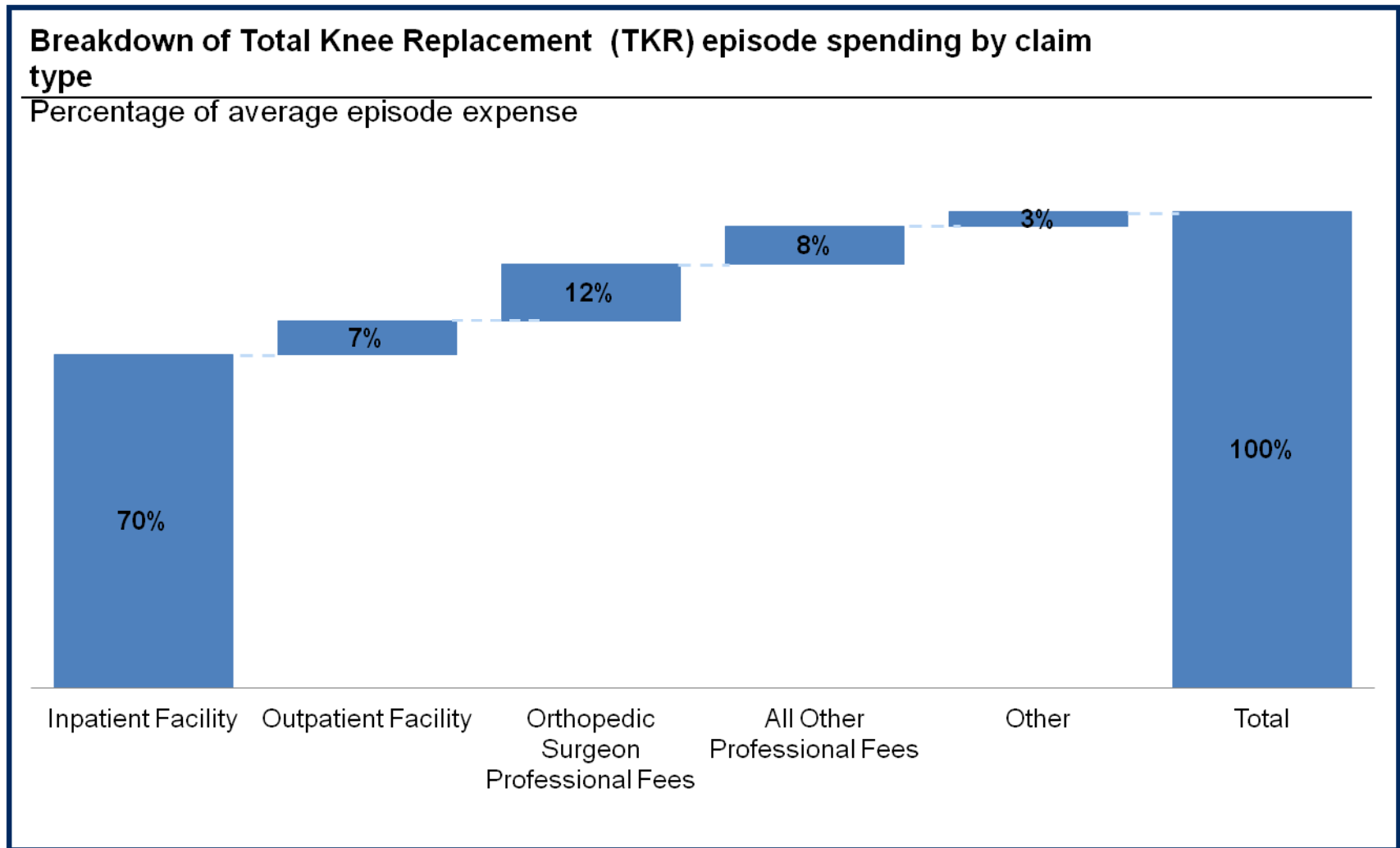
**2 Each bar represents case outcomes for individual orthopedic surgeon performing knee replacement procedure**

Source: Arkansas BCBS Claims Data from 2008 through 2010

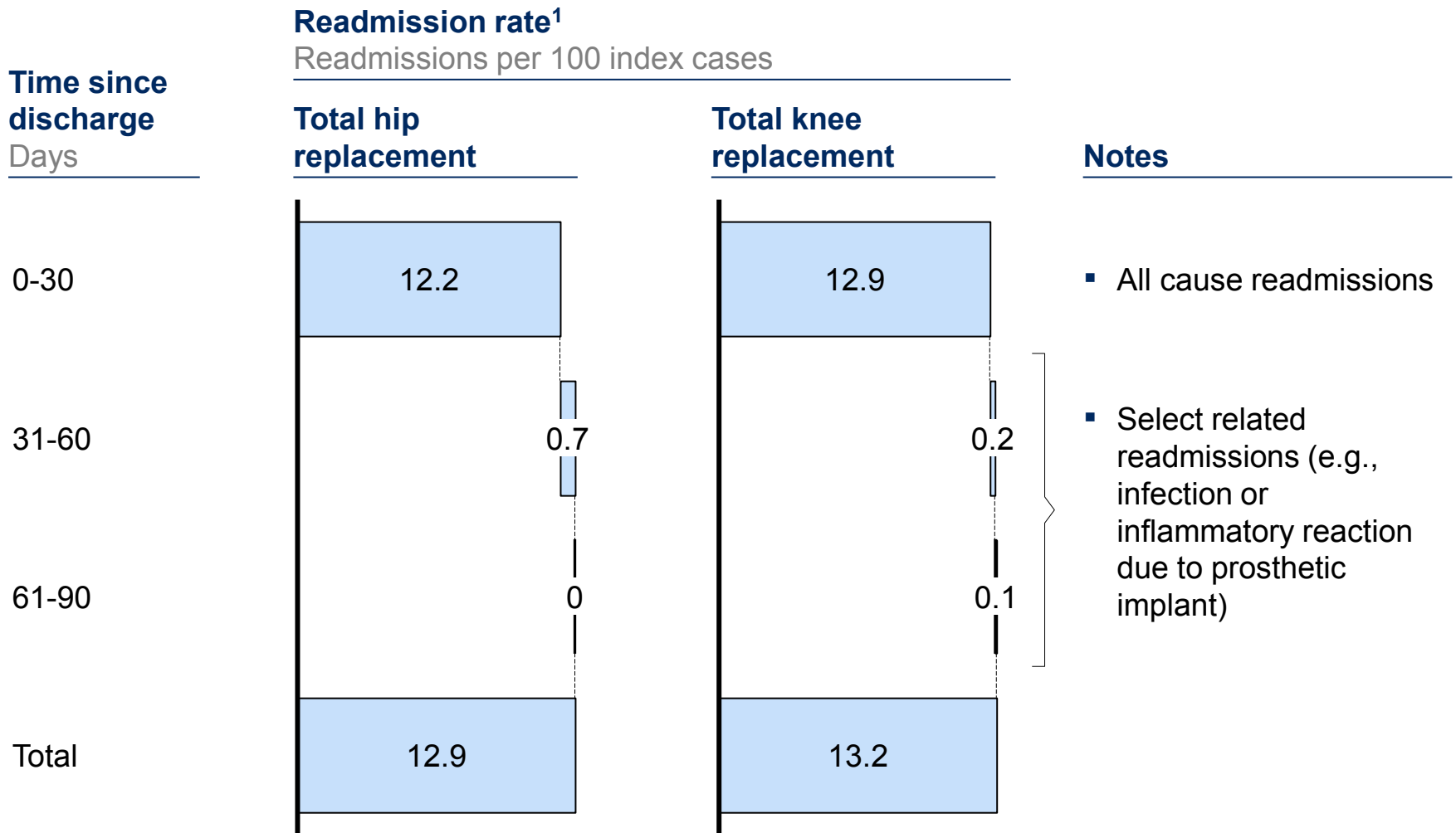
# Breakdown of Total Hip Replacement (THR) Episode Costs by Type of Claim for 2008 through 2010



## Breakdown of Total Knee Replacement (TKR) Episode Costs by Type of Claim for 2008 through 2010



# Distribution of Readmission after Discharge for Total Hip or Total Knee Replacement



# Contents

- Review version 1.0 episode design elements specific to Hip and Knee
- Review historical data for the Hip and Knee episode based on version 1.0 design

**Briefly review episode design elements common across episodes**

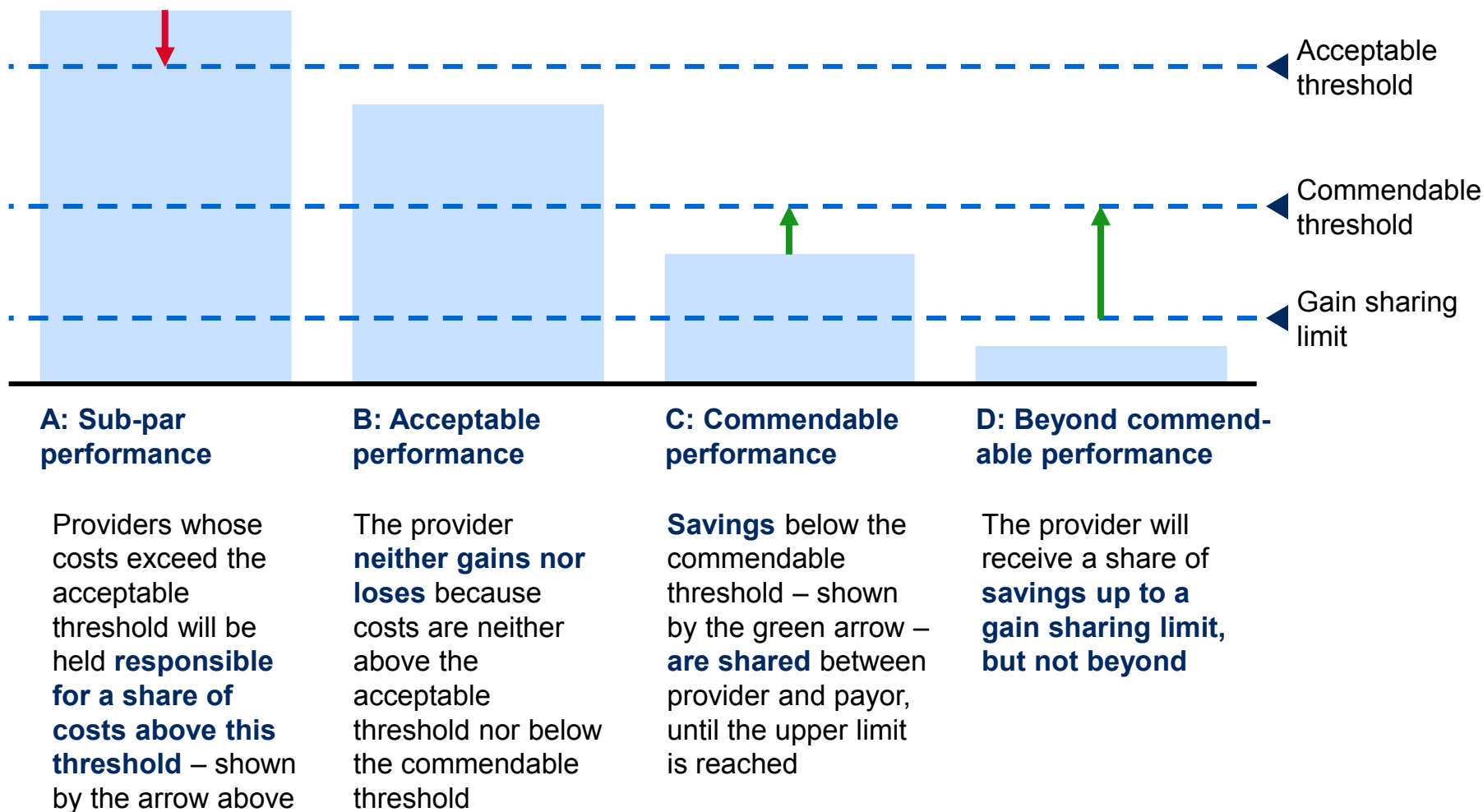


## In addition, version 1.0 episode design will incorporate several design elements common across clinical areas

	Description
<b>a</b> Payment mechanics	<ul style="list-style-type: none"><li>▪ Structure of risk and gain sharing arrangements</li><li>▪ Transition vs. end-state model</li></ul> <hr/>
<b>b</b> Other patient-level adjustments	<ul style="list-style-type: none"><li>▪ Patient risk/severity adjustments</li><li>▪ Outlier exclusions on a cost basis</li></ul> <hr/>
<b>c</b> Provider-level adjustments	<ul style="list-style-type: none"><li>▪ Stop-loss provisions</li><li>▪ Adjustments for providers in areas with poor physician access</li><li>▪ Adjustments for cost based hospitals</li><li>▪ Adjustments for differences in regional pricing</li><li>▪ Adjustments or exclusions for providers with low case-volume</li></ul>

# Gain and risk sharing: a Principal Accountable Provider will fall into one of four categories, depending on the provider's average cost per episode

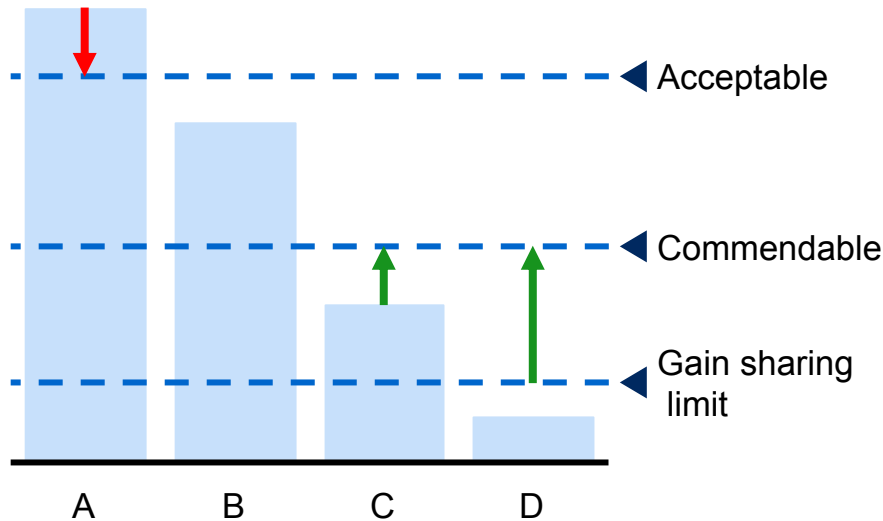
Average cost per episode, for each Principal Accountable Provider



# Gain and risk sharing: a transition period will allow for a more relaxed “acceptable” threshold (fewer providers will be exposed to downside risk)

## Transition period

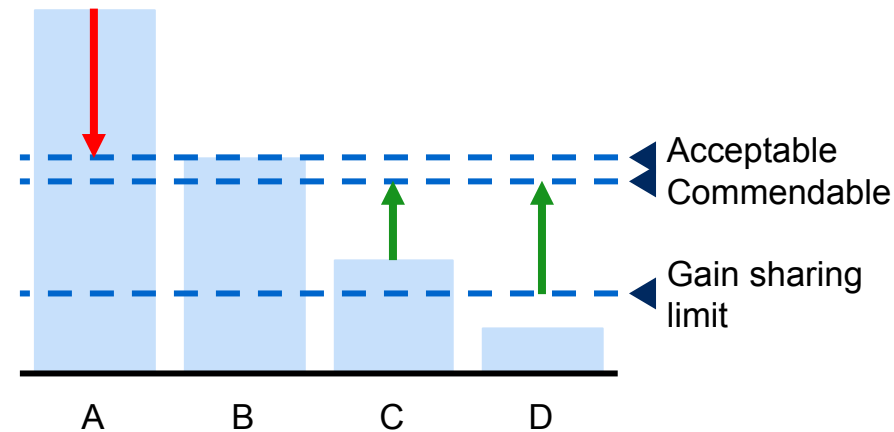
Average cost per episode, for each Principal Accountable Provider, at satisfactory quality



- Higher acceptable threshold (fewer providers exposed to downside risk)
- Providers begin implementing practice changes to meet outlined post-transition thresholds

## Post-transition period

Average cost per episode, for each Principal Accountable Provider, at satisfactory quality



- Acceptable threshold will be brought closer to the commendable threshold
- Commendable threshold will be brought to post-transition level

**Guiding principle:** give providers the time and resources to change practice patterns and improve performance before full risk and gain sharing is in effect